Listing of the Claims

Below is a listing of the pending claims in this application. No claim amendments are presented in this response.

1. (currently amended) A method for mapping a hierarchical data format with descriptors to a relational database, comprising the steps of:

separating the descriptors into portions of a plurality of common formats;

storing the portions of the plurality of common formats in relations in the relational database;

storing information describing a descriptor structure in the relations together with the portions of the plurality of common formats; and

wherein for at least one of the relations the information describing the descriptor structure includes an indicator for a hierarchical level of each ~~at least one~~ of the portions of the plurality of common formats within the descriptors, and an indicator for a position of a next upper hierarchical portion of the plurality of common formats within the descriptors.

2. (previously presented) The method according to claim 1, wherein the information describing the descriptor structure includes at least one of descriptor numbers, relative positions of the portions of the plurality of common formats within the descriptors, and absolute positions of the portions of the plurality of common formats within the descriptors.

3. (previously presented) The method according to claim 1, further comprising the step of providing independent relations for the common formats.

4. (previously presented) The method according to claim 1, further comprising the step of storing a descriptor index in the relational database, wherein the descriptor index allows storage of additional information for each of the descriptors.

5. (previously presented) The method according to claim 4, wherein the descriptor index comprises at least one of descriptor numbers, absolute positions of the descriptors within the relations, and unique identifiers for the descriptors.

6. (previously presented) The method according to claim 1, wherein the hierarchical data format comprising the descriptors corresponds to an Extensible Markup Language.

7. (previously presented) The method according to claim 1, wherein the common formats comprise at least one of elements, attributes and text.

8. (previously presented) The method according to claim 7, wherein the common formats comprise text which is divided into string values and integer values.

9. (previously presented) The method according to claim 7, wherein the common formats further comprise namespace information.

10. (currently amended) A database model for mapping a hierarchical data format comprising descriptors to a relational database, wherein the database model uses a method comprising the steps of:

separating the descriptors into portions of a plurality of common formats;

storing the portions of the plurality of common formats in relations in the relational database;

storing information describing a descriptor structure in the relations together with the portions of the plurality of common formats; and

wherein for at least one of the relations the information describing the descriptor structure includes an indicator for a hierarchical level of each ~~at least one~~ of the portions of the plurality of common formats within the descriptors, and an indicator for a position of a next upper hierarchical portion of the plurality of common formats within the descriptors.

11. (currently amended) An apparatus for at least one of reading from and writing to recording media, wherein the apparatus is operative to perform steps comprising:

separating descriptors into portions of a plurality of common formats;

storing the portions of the plurality of common formats in relations in a relational database;

storing information describing a descriptor structure in the relations together with the portions of the plurality of common formats; and

wherein for at least one of the relations the information describing the descriptor structure includes an indicator for a hierarchical level of each ~~at least one~~ of the portions of the plurality of common formats within the descriptors, and an indicator for a position of a next upper hierarchical portion of the plurality of common formats within the descriptors.

12. (previously presented) The database model according to claim 10, wherein the information describing the descriptor structure includes at least one of descriptor numbers, relative positions of the portions of the plurality of common formats within the descriptors, and absolute positions of the portions of the plurality of common formats within the descriptors.

13. (previously presented) The database model according to claim 10, wherein the hierarchical data format comprising the descriptors corresponds to an Extensible Markup Language.

14. (previously presented) The database model according to claim 10, wherein the common formats comprise at least one of elements, attributes and text.

15. (previously presented) The database model according to claim 10, wherein the common formats comprise text which is divided into string values and integer values.

16. (previously presented) The database model according to claim 14, wherein the common formats further comprise namespace information.

17. (previously presented) The apparatus according to claim 11, wherein the information describing the descriptor structure includes at least one of descriptor numbers, relative positions of the portions of the plurality of common formats within the descriptors, and absolute positions of the portions of the plurality of common formats within the descriptors.

18. (previously presented) The apparatus according to claim 11, wherein the common formats comprise at least one of elements, attributes and text.

19. (previously presented) The apparatus according to claim 11, wherein the common formats comprise text which is divided into string values and integer values.

20. (previously presented) The apparatus according to claim 18, wherein the common formats further comprise namespace information.